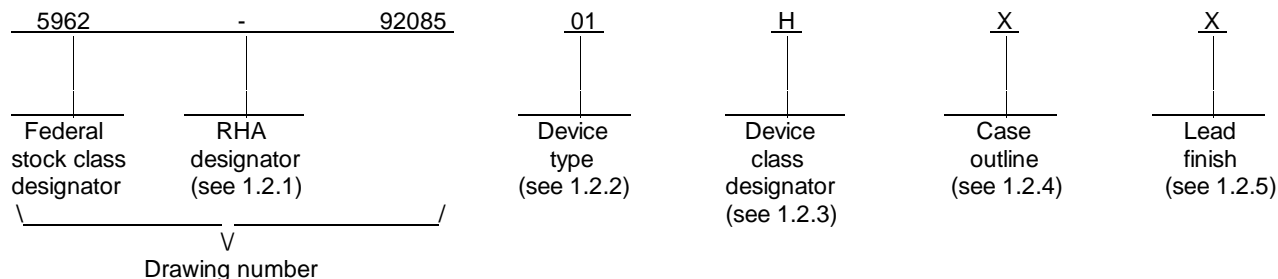




## 1. SCOPE

1.1 Scope. This drawing forms a part of a one part - one part number documentation system (see 6.6 herein). This drawing describes device requirements for hybrid microcircuits to be processed in accordance with MIL-H-38534. Two product assurance classes, military high reliability (device class H) and space application (device class K) and a choice of case outlines and lead finishes are available and are reflected in the Part or Identifying Number (PIN). When available, a choice of radiation hardness assurance levels are reflected in the PIN.

1.2 PIN. The PIN shall be as shown in the following example:



1.2.1 Radiation hardness assurance (RHA) designator. Device classes H and K RHA marked devices shall meet the MIL-H-38534 specified RHA levels and shall be marked with the appropriate RHA designator. A dash (-) indicates a non-RHA device.

1.2.2 Device type(s). The device type(s) shall identify the circuit function as follows:

Device type	Generic number	Circuit function
01	NHI-1551	Single channel, driver-receiver (universal transceiver) low power, receiver standby low
02	ARX-4451	Single channel, driver-receiver (universal transceiver) low power, receiver standby low
03	ARX-4418	Single channel, driver-receiver (universal transceiver) low power, receiver standby low
04	NHI-1515	Single channel, driver-receiver (universal transceiver) low power, receiver standby low
05	FC155377	Single channel, driver-receiver (universal transceiver) low power, receiver standby low

1.2.3 Device class designator. This device class designator shall be a single letter identifying the product assurance level as follows:

Device class	Device requirements documentation
H or K	Certification and qualification to MIL-H-38534

1.2.4 Case outline(s). The case outline(s) shall be as designated in MIL-STD-1835 and as follows:

Outline letter	Descriptive designator	Terminals	Package style
X	See figure 1	24	Hybrid package
Y	See figure 1	24	Flat package

1.2.5 Lead finish. The lead finish shall be as specified in MIL-H-38534 for classes H and K. Finish letter "X" shall not be marked on the microcircuit or its packaging. The "X" designation is for use in specifications when lead finishes A, B, and C are considered acceptable and interchangeable without preference.

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### 1.3 Absolute maximum ratings. <sup>1/</sup>

Supply voltage ranges:

$V_{CC}$ .....	-0.3 V dc to +18 V dc
$V_{EE}$ .....	+0.3 V dc to -18 V dc
$V_{CCL}$ .....	-0.3 V dc to +7 V dc
Logic input voltage range .....	-0.3 V dc to +5.5 V dc
Receiver differential input voltage .....	40 Vp-p
Receiver common mode input voltage range .....	-10 V dc to +10 V dc
Driver peak output current .....	±300 mA
Storage temperature range .....	-65° C to +150° C
Lead temperature (soldering, 10 seconds) .....	+300° C
Junction temperature ( $T_J$ ) .....	+160° C
Power dissipation ( $P_D$ ) total hybrid:	
100 percent duty cycle ( $T_C = +25° C$ ) .....	3.24 W
Power dissipation ( $P_D$ ) hottest die:	
100 percent duty cycle .....	545 mW
Standby mode .....	Derates to zero
Thermal resistance:	
Junction-to-case ( $\Theta_{JC}$ ) hottest die .....	38° C/W
Case-to-ambient .....	21° C/W
Maximum junction-to-case temperature rise for the	
hottest die at 100 percent duty cycle .....	21° C

### 1.4 Recommended operating conditions.

Supply voltage ranges:

$V_{CC}$ .....	+11.4 V dc to +15.75 V dc
$V_{EE}$ .....	-11.4 V dc to -15.75 V dc
$V_{CCL}$ .....	+4.5 V dc to +5.5 V dc
Logic input voltage range .....	0 V dc to +5.0 V dc
Receiver differential voltage .....	40 Vp-p
Receiver common mode voltage range .....	-10 V dc to +10 V dc
Driver peak output current .....	±180 mA
Maximum serial data rate .....	1.0 MHz
Case operating temperature range ( $T_C$ ) .....	-55° C to +125° C

<sup>1/</sup> Stresses above the absolute maximum rating may cause permanent damage to the device. Extended operation at the maximum levels may degrade performance and affect reliability.

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## 2. APPLICABLE DOCUMENTS

2.1 Government specification, standards, and handbook. Unless otherwise specified, the following specification, standards, and handbook of the issue listed in that issue of the Department of Defense Index of Specifications and Standards specified in the solicitation, form a part of this drawing to the extent specified herein.

### SPECIFICATION

#### MILITARY

MIL-H-38534 - Hybrid Microcircuits, General Specification for.

### STANDARDS

#### MILITARY

MIL-STD-883 - Test Methods and Procedures for Microelectronics.  
MIL-STD-973 - Configuration Management.  
MIL-STD-1835 - Microcircuit Case Outlines.

### HANDBOOK

#### MILITARY

MIL-HDBK-780 - Standardized Military Drawings.

(Copies of the specification, standards, and handbook required by manufacturers in connection with specific acquisition functions should be obtained from the contracting activity or as directed by the contracting activity.)

2.2 Order of precedence. In the event of a conflict between the text of this drawing and the references cited herein, the text of this drawing shall take precedence.

## 3. REQUIREMENTS

3.1 Item requirements. The individual item requirements shall be in accordance with MIL-H-38534 and as specified herein.

3.2 Design, construction, and physical dimensions. The design, construction, and physical dimensions shall be as specified in MIL-H-38534 and herein.

3.2.1 Case outline(s). The case outline(s) shall be in accordance with 1.2.4 herein and figure 1.

3.2.2 Terminal connections. The terminal connections shall be as specified on figure 2.

3.2.3 Test circuit. The test circuit shall be as specified on figure 3.

3.2.4 Timing waveforms. The timing waveforms shall be as specified on figure 4.

3.2.5 Coupling diagram. The coupling diagram shall be as specified on figure 5.

3.3 Electrical performance characteristics. Unless otherwise specified herein, the electrical performance characteristics are as specified in table I and shall apply over the full specified operating temperature range.

3.4 Electrical test requirements. The electrical test requirements shall be the subgroups specified in table II. The electrical tests for each subgroup are described in table I.

3.5 Marking. Marking shall be in accordance with MIL-H-38534. The part shall be marked with the PIN listed in 1.2 herein. In addition, the manufacturer's PIN may also be marked as listed in QML-38534.

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Electrical performance characteristics.

Test	Symbol	Conditions <u>1/</u> -55°C ≤ T <sub>C</sub> ≤ +125°C unless otherwise specified	Group A subgroups	Device type	Limits		Unit
					Min	Max	
RECEIVER							
Output low voltage	V <sub>OL</sub>	I <sub>OL</sub> = 10 mA	1, 2, 3	01, 02, 03, 04		0.5	V
		I <sub>OL</sub> = 4 mA		05		0.5	
Output high voltage	V <sub>OH</sub>	I <sub>OH</sub> = -0.4 mA	1, 2, 3	All	2.5		V
Differential input voltage level	V <sub>I</sub>		4, 5, 6	01, 02, 03, 04		40	Vp-p
		<u>2/</u>		05			
Differential input impedance	Z <sub>IN</sub>	1 MHz sinewave <u>2/</u>	4, 5, 6	All	10		kΩ
Common mode input voltage range	V <sub>ICR</sub>	1 MHz sinewave, see figure 3	4, 5, 6	01, 02, 03, 04	10		Vp-p
		<u>2/</u>		05			
Input capacitance	C <sub>IN</sub>	1 MHz sinewave <u>2/</u>	4	All		5	pF
Threshold voltage	V <sub>TH</sub>	<u>3/</u> <u>4/</u> <u>6/</u>	4, 5, 6	01, 02, 03, 04	0.6	1.05	Vp-p
		<u>3/</u> <u>4/</u> <u>10/</u>	4	05	1.10	1.20	
		<u>3/</u> <u>4/</u> <u>6/</u>	5, 6	05	0.56	1.20	
Receiver delay	t <sub>DR</sub>	Input zero crossing to DATA or DATA, see figure 3 <u>2/</u>	4, 5, 6	All		450	ns
RECEIVER STROBE							
Input low voltage	V <sub>SIL</sub>	<u>8/</u>	1, 2, 3	All		0.7	V
Input high voltage	V <sub>SIH</sub>	<u>8/</u>	1, 2, 3	All	2.0		V
Input low current	I <sub>SIL</sub>	V <sub>SIL</sub> = 0.4 V	1, 2, 3	01, 02, 03, 04	-0.4		mA
				05	-1.6		

See footnotes at end of table.

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Electrical performance characteristics - Continued.

Test	Symbol	Conditions <u>1/</u> -55°C ≤ T <sub>C</sub> ≤ +125°C unless otherwise specified	Group A subgroups	Device type	Limits		Unit
					Min	Max	
RECEIVER STROBE - CONTINUED.							
Input high current	I <sub>SIH</sub>	V <sub>SIH</sub> = 2.7 V	1, 2, 3	01, 02, 03, 04		80	μA
				05		40	
Strobe delay	t <sub>DS</sub>	Turn-on or turn-off, <u>2/</u> See figure 4	9, 10, 11	All		200	ns
TRANSMITTER							
Input low voltage	V <sub>IL</sub>	<u>8/</u>	1, 2, 3	All		0.7	V
Input high voltage	V <sub>IH</sub>	<u>8/</u>	1, 2, 3	All	2.0		V
Input low current	I <sub>IL</sub>	V <sub>IL</sub> = 0.4 V	1, 2, 3	01, 02, 03, 04	-0.4		mA
				05	-1.6		
Input high current	I <sub>IH</sub>	V <sub>IH</sub> = 2.7 V	1, 2, 3	All		40	μA
Differential output	V <sub>O</sub>	35Ω load <u>4/</u>	1, 2, 3	01, 04, 05	6.5	9.0	Vp-p
				02, 03	7.0	9.0	
		140Ω load <u>2/</u> <u>5/</u>		01, 04, 05	26	36	
				02, 03	28	36	
Differential output noise	V <sub>ON</sub>	Inhibited, 35Ω load <u>4/</u>	4, 5, 6	All		10	mVp-p
		140Ω load <u>2/</u> <u>5/</u>				40	
Differential output impedance	Z <sub>OUT</sub>	1 MHz sinewave, <u>2/</u> (transmitter off)	4, 5, 6	All	10		kΩ
Output capacitance	C <sub>OUT</sub>	1 MHz sinewave <u>2/</u>	4	All		5	pF
Differential output offset voltage	V <sub>OS</sub>	35Ω load	4, 5, 6	01, 02, 03, 04	-90	+90	mVpk
		35Ω load <u>10/</u>		05			
		140Ω load <u>2/</u> <u>5/</u> <u>7/</u>			-360	+360	

See footnotes at end of table.

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Electrical performance characteristics - Continued.

Test	Symbol	Conditions $\frac{1}{-55^{\circ}\text{C} \leq T_{\text{C}} \leq +125^{\circ}\text{C}}$ unless otherwise specified	Group A subgroups	Device type	Limits		Unit
					Min	Max	
TRANSMITTER - Continued.							
Receiver filter response	FILTER	f = 2 MHz $\frac{2}{\text{ }}$	4, 5, 6	All	-4.0		dB
		f = 4 MHz $\frac{2}{\text{ }}$			-13.0		
Rise time	t <sub>r</sub>	35Ω load, see figure 4	9, 10, 11	All	220	300	ns
Fall time	t <sub>f</sub>	35Ω load, see figure 4	9, 10, 11	All	220	300	
Transmitter delay	t <sub>dt</sub>	Transmitter-in to $\frac{2}{\text{ }}$ transmitter-out, see figure 4	9, 10, 11	01, 04		550	
				02, 03, 05		300	
Variable amplitude $\frac{2}{\text{ }}$ $\frac{5}{\text{ }}$ level	V <sub>AL</sub>	V <sub>IN</sub> = 10 V dc, 140Ω load	1	03, 04	30		V
		V <sub>IN</sub> = 0 V dc, 140Ω load		03, 04		2	

TRANSMITTER INHIBIT

Input low voltage	V <sub>IIL</sub>	8/	1, 2, 3	All		0.7	V
Input high voltage	V <sub>IIH</sub>	8/	1, 2, 3	All	2.0		V
Input low current	I <sub>IIL</sub>	V <sub>SIL</sub> = 0.4 V	1, 2, 3	01, 02, 03, 04	-0.4		mA
				05	-1.6		
Input high current	I <sub>IIH</sub>	V <sub>SIH</sub> = 2.7 V	1, 2, 3	All		40	μA
Transmitter inhibit delay (high)	t <sub>DI-H</sub>	0-1 inhibited output, 2/ See figure 4	9, 10, 11	All		450	ns
Transmitter inhibit delay (low)	t <sub>DI-L</sub>	1-0 active output, 2/ See figure 4	9, 10, 11	All		450	

See footnotes at end of table.

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Electrical performance characteristics - Continued.

Test	Symbol	Conditions $\frac{1}{-55^{\circ}\text{C} \leq T_{\text{C}} \leq +125^{\circ}\text{C}}$ unless otherwise specified	Group A subgroups	Device type	Limits		Unit
					Min	Max	
POWER SUPPLY							
+Supply ( $V_{\text{CC}}$ )	$I_{\text{CC-SB}}$	Standby mode	1, 2, 3	All		50	mA
-Supply ( $V_{\text{EE}}$ )	$I_{\text{EE-SB}}$			01, 04, 05		40	
				02, 03		65	
+5 V supply ( $V_{\text{CCL}}$ )	$I_{\text{CC1-SB}}$			01, 04, 05		20	
				02, 03		45	
+Supply ( $V_{\text{CC}}$ )	$I_{\text{CC-50}}$	50 percent duty cycle	4, 5, 6	All		110	mA
-Supply ( $V_{\text{EE}}$ )	$I_{\text{EE-50}}$			All		110	
+Supply ( $V_{\text{CC}}$ )	$I_{\text{CC-100}}$	100 percent duty cycle		All		165	
-Supply ( $V_{\text{EE}}$ )	$I_{\text{EE-100}}$			All		165	

- 1/ Unless otherwise specified supply voltage ranges are as follows:  
(+14.9 V dc ≤ V<sub>CC</sub> ≤ +15.1 V dc), (-14.9 V dc ≤ V<sub>EE</sub> ≤ -15.1 V dc), and (+4.9 V dc ≤ V<sub>CCL</sub> ≤ 5.1 V dc).
- 2/ Parameter shall be tested as part of device initial characterization and after design and process changes. Parameter shall be guaranteed to the limits specified in table I.
- 3/ Threshold determined by first missing word of a 33 word transmission to a Harris HD-15530 CMOS Manchester encoder-decoder.
- 4/ Measured at point AA' of figure 5.
- 5/ Measured at point BB' of figure 5.
- 6/ Assumes the internal threshold option is used.
- 7/ Offset is measured 2.5 μs after the mid-bit zero crossing of the last parity bit of a 600 μs transmission cycle of contiguous words (no dead time in between words).
- 8/ These parameters are tested on a go-no-go basis in conjunction with other measured parameters and are not directly testable.
- 9/ This parameter is adjusted and measured with pins 6 and 11 each grounded through a 3830Ω resistor.
- 10/ Measured 2.5 μs after parity bit mid zero crossing of a 660 μs message with worse case data word. This parameter is adjusted and tested at 25°C only, -55°C and +125°C limits are guaranteed by design.

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3.6 Manufacturer eligibility. In addition to the general requirements of MIL-H-38534, the manufacturer of the part described herein shall maintain the electrical test data from the initial quality conformance inspection group A lot sample, produced on the certified line, for each device type listed herein. The data should also include a summary of all parameters manually tested, and for those which, if any, are guaranteed. This data shall be maintained under document revision control by the manufacturer and be made available to preparing activity (DESC-EC) upon request.

3.7 Certificate of compliance. A certificate of compliance shall be required from a manufacturer in order to supply to this drawing. The certificate of compliance submitted to DESC-EC shall affirm that the manufacturer's product meets the requirements of MIL-H-38534 and the requirements herein.

3.8 Certificate of conformance. A certificate of conformance as required in MIL-H-38534 shall be provided with each lot of microcircuits delivered to this drawing.

#### 4. QUALITY ASSURANCE PROVISIONS

4.1 Sampling and inspection. Sampling and inspection procedures shall be in accordance with MIL-H-38534.

4.2 Screening. Screening shall be in accordance with MIL-H-38534. The following additional criteria shall apply:

a. Burn-in test, method 1015 of MIL-STD-883.

(1) Test condition A, B, C, or D. The test circuit shall be maintained by the manufacturer under document revision level control and shall be made available to either DESC-EC or the acquiring activity upon request. Also, the test circuit shall specify the inputs, outputs, biases, and power dissipation, as applicable, in accordance with the intent specified in test method 1015 of MIL-STD-883.

(2)  $T_A$  as specified in accordance with table I of method 1015 of MIL-STD-883.

b. Interim and final electrical test parameters shall be as specified in table II herein, except interim electrical parameter tests prior to burn-in are optional at the discretion of the manufacturer.

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# Case X

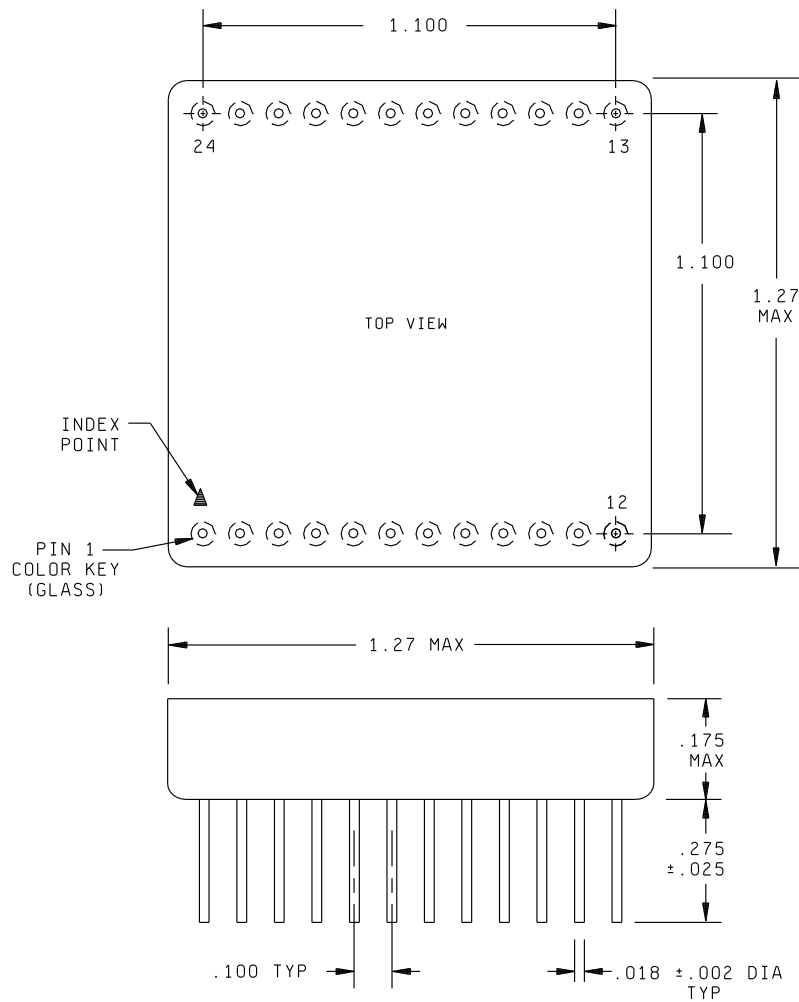


FIGURE 1. Case outlines.

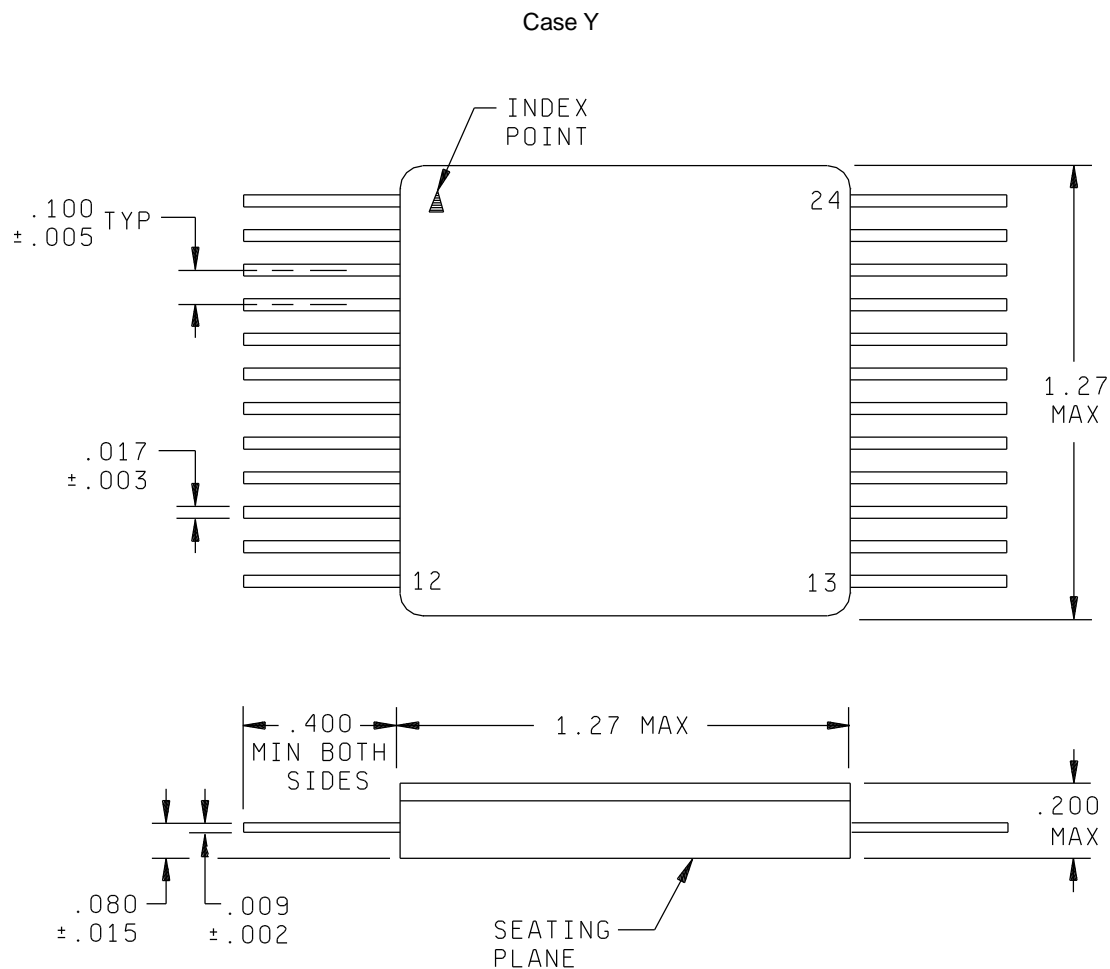
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Inches	mm	Inches	mm
.002	0.05	.080	2.03
.003	0.08	.100	2.54
.005	0.13	.175	4.46
.009	0.23	.200	5.08
.015	0.64	.275	6.98
.017	0.43	.400	10.16
.018	0.46	1.100	27.94
.025	0.64	1.27	32.3

NOTES (for case X and case Y):

1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. Unless otherwise specified, tolerance for three place decimal shall be .005 (0.13 mm).

FIGURE 1. Case outlines - Continued.

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Pin	Function	Pin	Function
1	TX DATA OUT	13	V <sub>CC</sub> RX
2	TX DATA OUT	14	Amp control or NC See note
3	GND C	15	RX DATA IN
4	V <sub>CC</sub> TX	16	RX DATA IN
5	EXTERNAL DATA THRESHOLD	17	GND A
6	INTERNAL DATA THRESHOLD	18	CASE GND
7	RX DATA OUT	19	V <sub>EE</sub> RX
8	STROBE	20	V <sub>CCL</sub>
9	GND B	21	TX INHIBIT
10	RX DATA OUT	22	TX DATA IN
11	INTERNAL DATA THRESHOLD	23	TX DATA IN
12	EXTERNAL DATA THRESHOLD	24	V <sub>EE</sub> TX

NOTE: Pin 14 is a no connection for device types 01,02 and 05 and  
amp control for device types 03 and 04.

FIGURE 2. Terminal connections.

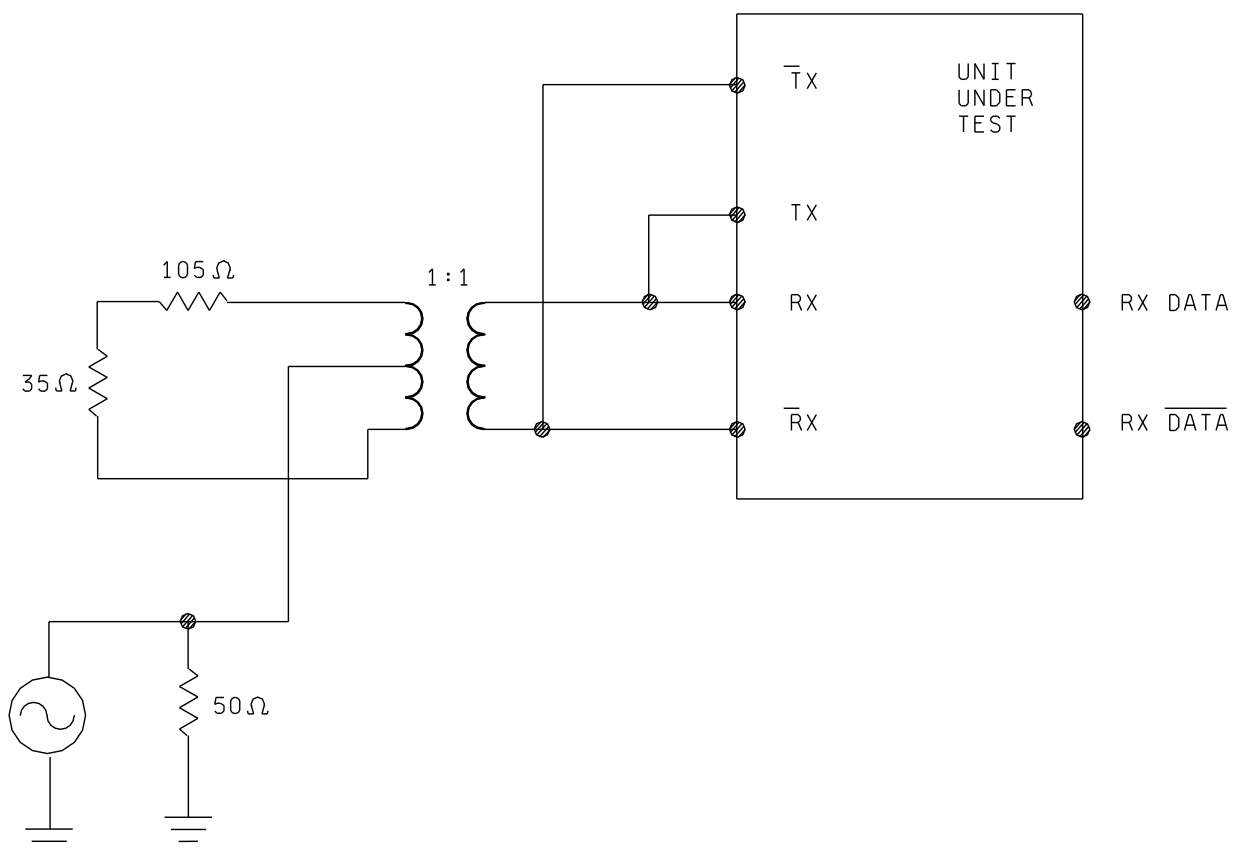
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COMMON - MODE TEST

NOTE: Observe no transmission of data at RX DATA and RX DATA.

FIGURE 3. Test circuit.

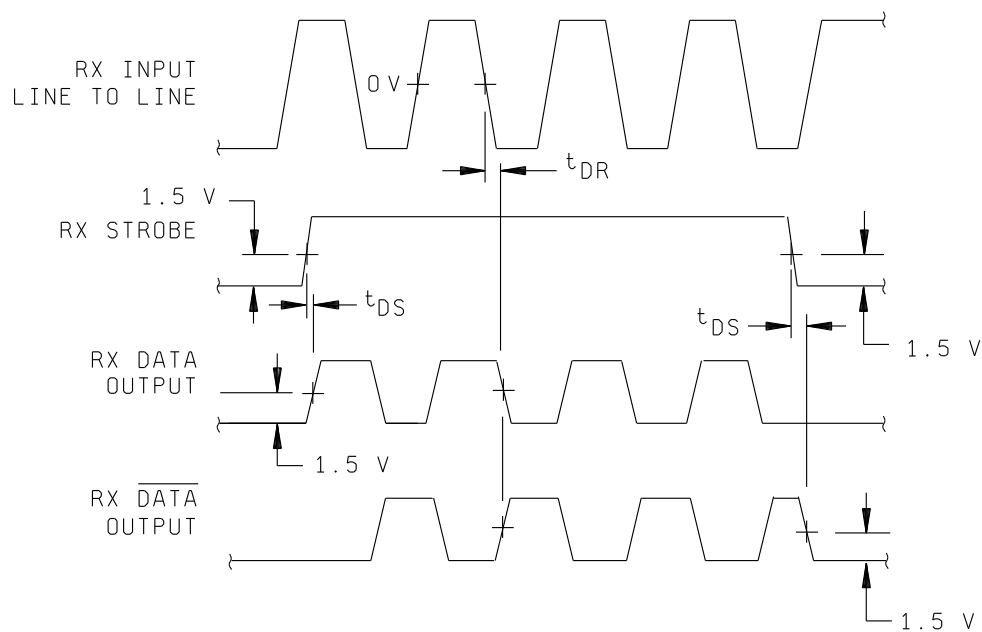
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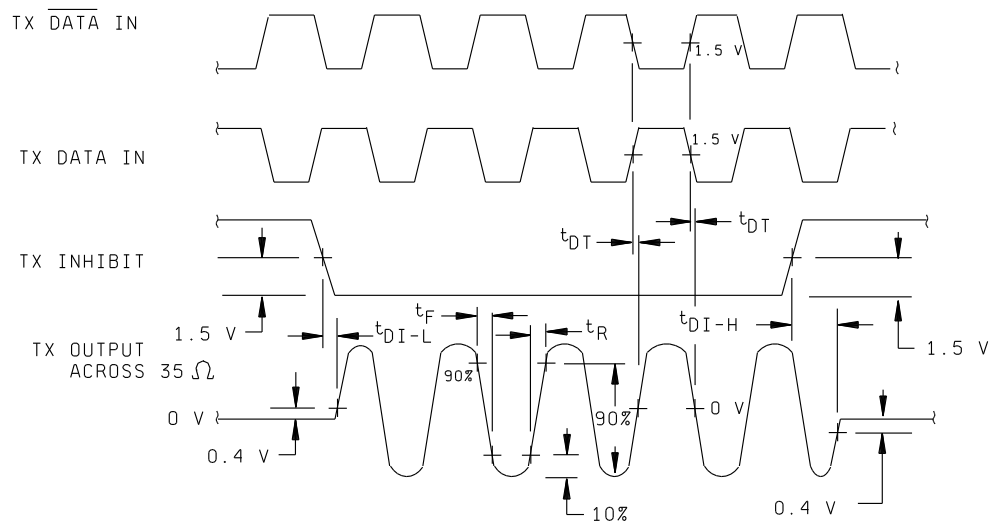
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RECEIVER TIMING



TRANSMITTER TIMING

FIGURE 4. Timing waveforms.

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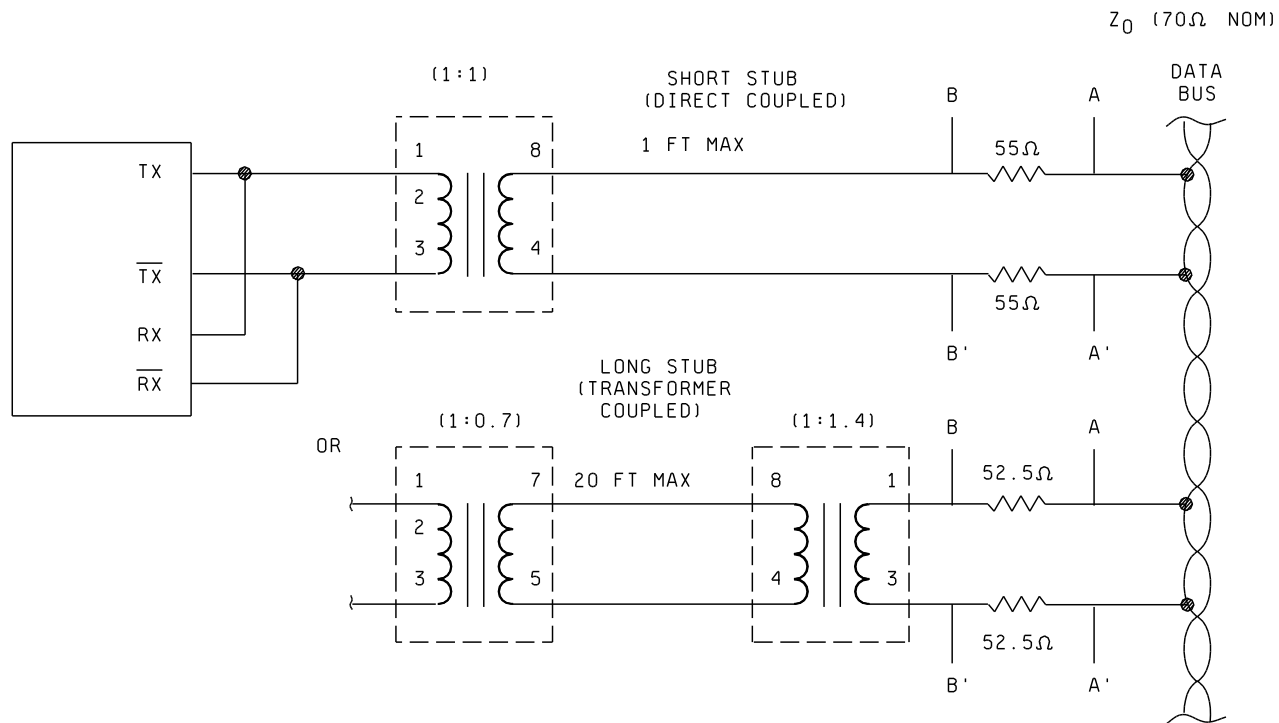


FIGURE 5. Coupling diagram.

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TABLE II. Electrical test requirements.

MIL-H-38534 test requirements	Subgroups (in accordance with MIL-H-38534, group A test table)
Interim electrical parameters	1
Final electrical test parameters	1*, 2, 3, 4, 5, 6, 9, 10, 11
Group A test requirements	1, 2, 3, 4, 5, 6, 9, 10, 11
Group C end-point electrical parameters	1, 2, 3
MIL-STD-883, group E end-point electrical parameters for RHA devices	Subgroups ** (per method 5005, group A test table)

\* PDA applies to subgroup 1.

\*\* When applicable to this standardized military drawing,  
the subgroups shall be defined.

4.3 Quality conformance inspection. Quality conformance inspection shall be in accordance with MIL-H-38534 and as specified herein.

4.3.1 Group A inspection. Group A inspection shall be in accordance with MIL-H-38534 and as follows:

- a. Tests shall be as specified in table II herein.
- b. Subgroups 7 and 8 shall be omitted.

4.3.2 Group B inspection. Group B inspection shall be in accordance with MIL-H-38534.

4.3.3 Group C inspection. Group C inspection shall be in accordance with MIL-H-38534 and as follows:

- a. End-point electrical parameters shall be as specified in table II herein.
- b. Steady-state life test conditions, method 1005 of MIL-STD-883.
  - (1) Test condition A, B, C, or D. The test circuit shall be maintained by the manufacturer under document revision level control and shall be made available to either DESC-EC or the acquiring activity upon request. Also, the test circuit shall specify the inputs, outputs, biases, and power dissipation, as applicable, in accordance with the intent specified in test method 1005 of MIL-STD-883.
  - (2)  $T_A$  as specified in accordance with table I of method 1005 of MIL-STD-883.
  - (3) Test duration: 1,000 hours, except as permitted by method 1005 of MIL-STD-883.

4.3.4 Group D inspection. Group D inspection shall be in accordance with MIL-H-38534.

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4.3.5 Group E inspection. Group E inspection is required only for parts intended to be marked as radiation hardness assured (see 3.5 herein). RHA levels for device classes H and K shall be M, D, R, and H. RHA quality conformance inspection sample tests shall be performed at the RHA level specified in the acquisition document.

- a. RHA tests for device classes H and K for levels M, D, R, and H shall be performed through each level to determine at what levels the devices meet the RHA requirements. These RHA tests shall be performed for initial qualification and after design or process changes which may affect the RHA performance of the device.
- b. End-point electrical parameters shall be as specified in table II herein.
- c. Prior to total dose irradiation, each selected sample shall be assembled in its qualified package. It shall pass the specified group A electrical parameters in table I for subgroups specified in table II herein.
- d. For device classes H and K, the devices shall be subjected to radiation hardness assured tests as specified in MIL-H-38534 for RHA level being tested, and meet the postirradiation end-point electrical parameter limits as defined in table I at  $T_A = +25^\circ\text{C} \pm 5$  percent, after exposure.
- e. Prior to and during total dose irradiation testing, the devices shall be biased to establish a worst case condition as specified in the radiation exposure circuit.
- f. For device classes H and K, subgroups 1 and 2 in table V, method 5005 of MIL-STD-883 shall be tested as appropriate for device construction.
- g. When specified in the purchase order or contract, a copy of the RHA delta limits shall be supplied.

## 5. PACKAGING

5.1 Packaging requirements. The requirements for packaging shall be in accordance with MIL-H-38534.

## 6. NOTES

6.1 Intended use. Microcircuits conforming to this drawing are intended for use for Government microcircuit applications (original equipment), design applications, and logistics purposes.

6.2 Replaceability. Microcircuits covered by this drawing will replace the same generic device covered by a contractor-prepared specification or drawing.

6.3 Configuration control of SMD's. All proposed changes to existing SMD's will be coordinated with the users of record for the individual documents. This coordination will be accomplished in accordance with MIL-STD-973 using DD Form 1692, Engineering Change Proposal.

6.4 Record of users. Military and industrial users shall inform Defense Electronics Supply Center when a system application requires configuration control and the applicable SMD. DESC will maintain a record of users and this list will be used for coordination and distribution of changes to the drawings. Users of drawings covering microelectronic devices (FSC 5962) should contact DESC-EC, telephone (513) 296-6047.

6.5 Comments. Comments on this drawing should be directed to DESC-EC, Dayton, Ohio 45444, or telephone (513) 296-5374.

<b>STANDARD MICROCIRCUIT DRAWING DEFENSE ELECTRONICS SUPPLY CENTER DAYTON, OHIO 45444</b>	<b>SIZE A</b>		<b>5962-92085</b>
		<b>REVISION LEVEL A</b>	<b>SHEET 17</b>

6.6 One part - one part number system. The one part - one part number system described below has been developed to allow for transitions between identical generic devices covered by the three major microcircuit requirements documents (MIL-H-38534, MIL-I-38535, and 1.2.1 of MIL-STD-883) without the necessity for the generation of unique PIN's. The three military requirements documents represent different class levels, and previously when a device manufacturer upgraded military product from one class level to another, the benefits of the upgraded product were unavailable to the Original Equipment Manufacturer (OEM), that was contractually locked into the original unique PIN. By establishing a one part number system covering all three documents, the OEM can acquire to the highest class level available for a given generic device to meet system needs without modifying the original contract parts selection criteria.

<u>Military documentation format</u>	<u>Example PIN under new system</u>	<u>Manufacturing source listing</u>	<u>Document listing</u>
New MIL-H-38534 Standardized Military Drawings	5962-XXXXXZZ(H or K)YY	QML-38534	MIL-BUL-103
New MIL-I-38535 Standardized Military Drawings	5962-XXXXXZZ(Q or V)YY	QML-38535	MIL-BUL-103
New 1.2.1 of MIL-STD-883 Standardized Military Drawings	5962-XXXXXZZ(M)YY	MIL-BUL-103	MIL-BUL-103

6.7 Sources of supply for device classes H and K. Sources of supply for device classes H and K are listed in QML-38534. The vendors listed in QML-38534 have submitted a certificate of compliance (see 3.7 herein) to DESC-ECT and have agreed to this drawing.

STANDARD MICROCIRCUIT DRAWING DEFENSE ELECTRONICS SUPPLY CENTER DAYTON, OHIO 45444	SIZE <b>A</b>		<b>5962-92085</b>
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# STANDARDIZED MILITARY DRAWING SOURCE APPROVAL BULLETIN

DATE: 95-03-17

Approved sources of supply for SMD 5962-92085 are listed below for immediate acquisition only and shall be added to QML-38534 during the next revision. QML-38534 will be revised to include the addition or deletion of sources. The vendors listed below have agreed to this drawing and a certificate of compliance has been submitted to and accepted by DESC-EC. This bulletin is superseded by the next dated revision of QML-38534.

Standardized military drawing PIN	Vendor CAGE number	Vendor similar PIN <u>1/</u>
5962-9208501HXX	57363	NHI-1551
5962-9208501HYX	57363	NHI-1551FP
5962-9208502HXX	88379	ARX4451
5962-9208502HYX	88379	ARX4451FP
5962-9208503HXX	88379	ARX4418
5962-9208503HYX	88379	ARX4418FP
5962-9208504HXX	57363	NHI-1515
5962-9208504HYX	57363	NHI-1515FP
5962-9208505HXX	U4388	FC155377
5962-9208505HYX	U4388	FC155377FP

1/ Caution. Do not use this number for item acquisition.  
Items acquired to this number may not satisfy the performance  
requirements of this drawing.

Vendor CAGE  
number

Vendor name  
and address

57363

National Hybrid, Incorporated  
2200 Smithtown Avenue  
Ronkonkoma, NY 11779

88379

Aeroflex Laboratories  
35 South Service Road  
Plainview, NY 11803

U4388

C-MAC Microcircuits Limited  
South Denes  
Great Yarmouth  
Norfolk NR30 3PX  
England

The information contained herein is disseminated for convenience only and the Government assumes no liability whatsoever for any inaccuracies in this information bulletin.